



**PATIENT**

Binx Karch

**SPECIES**

Feline

**BREED**

DSH

**SEX**

M

**AGE**

6 months

**WEIGHT**

8.42 lbs.

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP (Canine  
and Feline)

**IMAGING PERFORMED BY**

Dr. Gromalak

**HOSPITAL NAME**

SVS Imaging

**REFERRING VET**

Dr. Goertz

**INVOICE**

13749

**DATE**

4/27/22

**PRESENTING CLINICAL SIGNS**

History of grade I/VI systolic murmur consistently noted on exams (2/8/22, 3/8/22, and at 6-month of age pre-neuter recheck on 4/26/22), asymptomatic. Exam findings and abnormal lab values: I/VI systolic heart murmur, lungs clear. No other exam

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT		2.3	0.43	1.37	0.43	50.7	85.5
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Sisson)	LA 2D 4-chamber long axis AS to FW (Sisson) (cm)	LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)	
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7	<1.6	<1.3	40-60	
PATIENT	1.35	1.42	1.1	1.0	1.0	NM	
Adapted from June Boon, Veterinary Echocardiography, 1998 Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705							

**Cardiac Presentation**

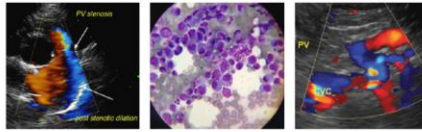
The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate LA measurements. The cranial and caudal **mitral** valve leaflets presented normal linear structure and kinetics. The **left ventricle** presented normal thicknesses with linear contour and was not dilated nor restricted. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions and angles of the myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinetics. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). No visible **pericardial** or free pleura fluid was noted or extra cardiac pathology in the visible planes. The cranial **mediastinum and pericardial regions** were free of masses in the visible window.

**ULTRASONOGRAPHIC FINDINGS**

- Normal echocardiogram

**IMAGING PERFORMED BY**

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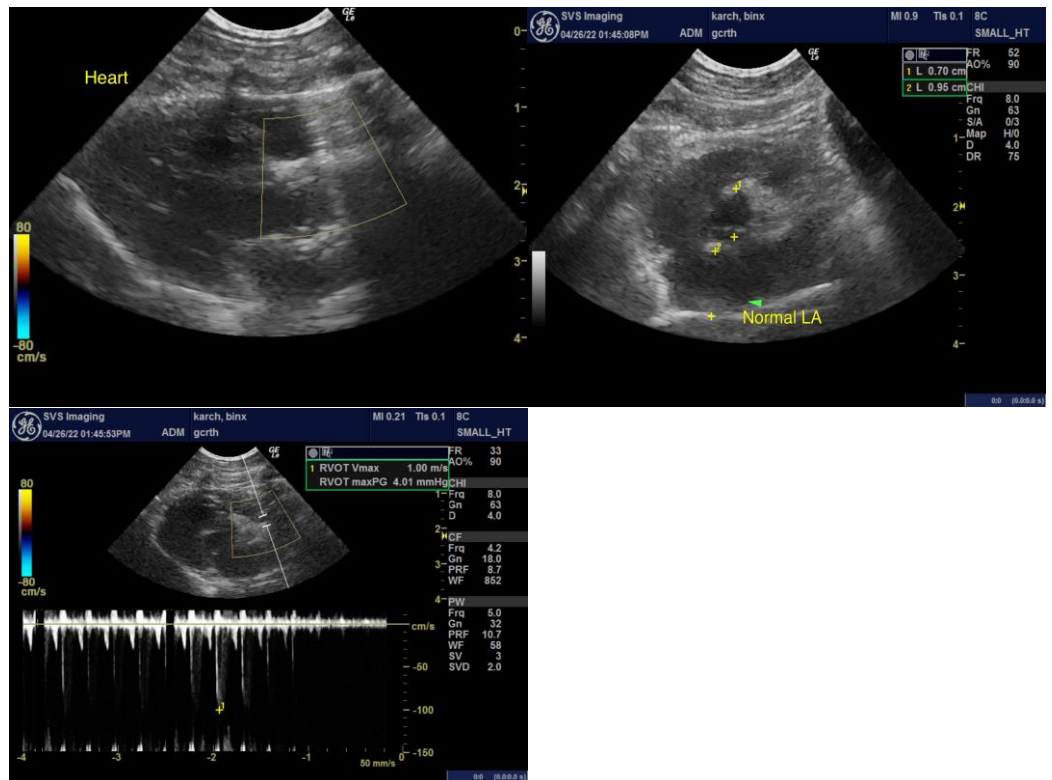
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Overtly normal cardiac structure and function were present without evidence of significant structural or functional cardiomyopathy, significant valvular insufficiencies, stenotic disease, or an overt shunt. IN the absence of volume changes such as dehydration and assuming no anemia, a physiologic flow murmur or small flow abnormality not visualized are considered probable. Regardless, the hemodynamic effects of the low-grade murmur appear to be minimal, given the lack of structural or functional cardiomyopathy. Continued monitoring at this stage would be appropriate. No overt anesthetic contraindications were noted. Recheck echocardiogram is suggested in 4-6 months, sooner if murmur intensity progresses.

Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists.



**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
**info@SonoPath.com**